

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Signode  
Attn: Mark Hollo  
7701 West 71st Street  
Bridgeview, Illinois 60455

Application No.: 04100019                      I.D. No.: 031027AAG  
Applicant's Designation:                      Date Received: October 12, 2004  
Subject: Coating Operations for Pilot Line  
Date Issued:  
Location: 7701 West 71st Street, Bridgeview

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of coating operations for its existing Pilot Line, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1.0 Unit Specific Conditions
  - 1.1 Unit: Coating Operations on the Pilot Line

1.1.1 Description

The Pilot Line is used for research and development in the production of steel strapping for industrial and commercial packaging and shipping. New coating operations are being added to the line, for the application of paint and wax coating to the strapping. These coating operations would also enhance the potential ability the line to also be used for the production of "finished" strapping for sale. These coating operations would emit volatile organic material (VOM) from the application and curing or drying of the paint and wax coating.

1.1.2 List of Emission Units

Emission Unit	Description	Emission Control Equipment
Painting	Dip Tank (PL-2)	None
	Drying Oven (PL-3)	None
Wax Coating	Wax Applicator/Dryer (PL-4)	None

1.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected units" for the purpose of these unit-specific conditions are the emission unit described in Conditions 1.1.1 and 1.1.2.
- b. The affected units are subject to the federal New Source Performance Standards (NSPS), 40 CFR 60 Subpart TT, Standard for Metal Coil Surface Coating, which provides that for each finish coat operation that does not use an emission control device, no more than 0.28 kilogram volatile organic compounds (VOC) per liter of coating solids applied shall be discharged into the atmosphere for each calendar month. [40 CFR 60.60.4692(a)(1)]
- c. The affected units are subject to the federal National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR 63 Subpart SSSS: Standards for Surface Coating of Metal Coil, which provides that from the affected units, the affected units and other lines at the source, or all affected lines at the source, no more than 0.046 kilogram (kg) of organic Hazardous Air Pollutants (HAP) per liter of solids applied shall be discharged into the atmosphere during each 12-month compliance period. [40 CFR 63.5120(a)(2)]

Note: For this purpose the wax coating operation shall be considered a surface coating operation if the wax coating qualifies as a coating material as defined by 40 CFR 63.5110, e.g., the wax coating does not meet the definition of a protective oil.

- d. Each affected unit is subject to 35 IAC 212.321, which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). [35 IAC 212.321(a)]
- e. The affected units are each subject to 35 IAC 218.204(d), Coating Operation for Coil Coating, which provides that no person shall cause or allow the emissions of VOM from a coil coating operation to exceed the limit in 35 IAC 218.204(d), excluding water and any compounds which are specifically exempted from the definition of volatile organic material. [35 IAC 28.204(d)]

1.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on this project not being a major modification subject to 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM) because the emissions of VOM from the affected units and other contemporaneous projects are less than 25 tons per year. (See Attachment 1.)

For this purpose, this permit also addresses an existing punch press department at this source (see Condition 2), the existing cold rolling mill at the source, which supplies steel for the Pilot Line (see Condition 3), and a "new" printing line installed at the source in 2001 (see Condition 4).

1.1.5 Operational and Production Limits and Work Practices

- a. The Permittee shall follow good operating practices for affected units, including periodic inspections, routine maintenance, and prompt repair of defects.
- b. Total use of paint in the paint dip tank shall not exceed 2,625 gallons/month and 21,000 gallons/year.
- c. This permit is issued based on the affected units using electric dryers, rather than fuel fired dryers.

1.1.6 Emission Limitations

- a. i. VOM emissions from the affected units shall not exceed the following limits:

<u>Unit</u>	<u>Limit</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Painting Line (PL-2 and PL-3)	2.90	17.85
Wax Applicator/Dryer (PL-4)	0.26	<u>1.53</u>
<b>Total:</b>		<b>19.38</b>

- ii. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- b. This permit is issued based on negligible emissions of PM from the affected units. For this purpose negligible emissions shall not exceed 0.1 lb/hr and 0.44 tons/year.

1.1.7 Testing Requirements

- a. The Permittee shall comply with all the applicable testing requirements under the NSPS, 40 CFR 60.463, and the NESHAP, 40 CFR 63.5160, for the affected units.
- b. Upon request by the Illinois EPA, the VOM content of specific coatings used on the affected units shall be determined according to USEPA Reference Method 24 (40 CFR 60, Appendix A, Method 24) and the procedures of 35 IAC 218.105(a), as follows:
  - i. The VOM content of representative coatings as applied on the affected units shall be determined.
  - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 1.1.9(c) (ii) directly reflect the application of such material and separately account for any additions of solvent. [35 IAC 218.105(a)]

1.1.8 Monitoring Requirements

The Permittee shall comply with all applicable monitoring requirements under the NSPS, 40 CFR 60.464, and the NESHAP, 40 CFR 63.5150, for the affected units.

1.1.9 Recordkeeping Requirements

- a. The Permittee shall fulfill all applicable recordkeeping requirements under the NSPS 60.465 and NESHAP 40 CFR 63.5190 for the affected units.
- b. The Permittee shall keep records of the amount of steel strapping produced by the Pilot Line, tons/month.
- c. The Permittee shall maintain records of the following items for the affected units:
  - i. Total usage of coating materials for the affected units (gallons/month and gallons/year);
  - ii. VOM and HAP content of the coating materials used in the affected units; and

- iii. Monthly and annual VOM and HAP emissions from the affected units (tons/month and tons/year).

1.1.10 Reporting Requirements

- a. The Permittee shall fulfill all applicable notification and reporting requirements under the NSPS and NESHAP for the affected units.
- b. The Permittee shall promptly notify the Illinois EPA of deviations of the affected unit with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.
  - i. Deviations from requirements of the NSP or NESHAP shall be reported in accordance with applicable provisions of the NSPS or NESHAP.
  - ii. Deviations from the emission limits in Condition 1.6(a) shall be reported in 30 days.
  - iii. Other deviations shall be reported in a quarterly report.

1.1.11 Compliance Procedures

- a. Compliance with the emission limitations in Condition 1.1.6(a) shall be determined by material balance, i.e., VOM or HAP emissions equal the product of material usage and VOM or HAP content of the material used.

1.1.12 General Requirements

- a. This permit does not revise or relax the applicable emissions standards or associated compliance procedures for the Pilot Line contained in CAAPP permit 95090018, including requirements for testing, monitoring, recordkeeping and reporting, which shall be applicable to the Pilot Line pursuant to this permit until a new CAAPP Permit is issued for the source.

2. Punch Press Department #2

- a.
  - i. Vanishing oil usage by Punch Press Department #2 shall not exceed 45 gallons/month and 360 gallons/year.
  - ii. The VOM emissions of Punch Press Department #2 shall not exceed 0.2 tons/month and 1.14 tons/year.

iii. Compliance with the above annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

iv. The above limitations, which are more stringent than those contained in the construction permit for Punch Press Department #2, Construction Permit 01020025, become effective upon initial startup of a coating operation on the pilot line. They are imposed as a consequence of the lower VOM emissions from this department relied upon by the Permittee for purposes of addressing applicability of nonattainment NSR.

b. This permit does not revise or relax any of the applicable emission standards or compliance procedures for Punch Press Department #2 contained in CAAPP permit 95090018, including any requirements for testing, monitoring, recordkeeping and reporting, which shall be applicable to this department pursuant to this permit until a new CAAPP Permit is issued for the source.

3. Existing Cold Rolling Mill (Cold Mill)

a. The Cold Mill is subject to 35 IAC 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists this limitation shall apply only to photochemically reactive material as defined by 35 IAC 211.4690.

b. i. Total steel rolled in the Cold Mill shall not exceed 34,400 tons/month and 206,900 tons/year.

ii. Emissions from the Cold Mill shall not exceed the following limitations:

<u>Pollutants</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
PM	2.1	12.8
PM <sub>10</sub>	7.45	44.7
VOM	0.76	4.6

Note: The potential increased utilization of the Cold Mill with this project is approximately 9.0 percent. Accordingly, the potential increase in VOM emissions accompanying the Pilot Lone project is 0.37 tons/year.

iii. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

The above limitations become effective upon initial startup of a coating operation on the Pilot Line. They are imposed to address the potential increase in operation and emissions of the Cold Mill, which supplies steel to the Pilot Line, as a consequence of the addition of coating operations to the Pilot Line.

- c. The Permittee shall keep the following records related to the Cold Mill:
    - i. A file demonstrating that potential emissions of organic material emissions from the Cold Mill do not exceed 8 lbs/hour or would not qualify as photochemically reactive material, so would comply with 35 IAC 218.301.
    - ii. The VOM content of the various VOM containing materials uses at the Cold Mill, with supporting documentation.
    - iii. The usage the various VOM containing material used at the Cold Mill.
    - iv. The steel production from the Cold Mill.
    - v. Records of the monthly and annual VOM emissions from the Cold Mill in tons/month and tons/year.
  - d. This permit does not revise or relax the applicable emissions standards or associated compliance procedures for the Cold Mill contained in CAAPP permit 95090018, including requirements for testing, monitoring, recordkeeping and reporting, which shall be applicable to the Cold Mill pursuant to this permit until a new CAAPP Permit is issued for the source.
4. Printing Line (PRINT-1)
- a. The emissions of VOM from the Printing Line (PRINT-1) shall not exceed 0.14 ton/year.
  - b.
    - i. The Permittee shall keep a file demonstrating potential emissions of VOM from the PRINT-1, with all supporting documentation and calculations.
    - ii. If the potential emissions of VOM based on the above information exceed 0.14 tons/year, the Permittee shall keep appropriate operating records for PRINT-1 to verify that its VOM emissions do not exceed 0.14 ton/year.
5. The Permittee shall comply with all applicable requirements for a participating source under the Emissions Reduction Market System (ERMS), 35 IAC Part 205, including maintaining a compliance master file, timely reporting of seasonal VOM emissions to the Illinois EPA,

and holding sufficient allotment trading units to cover the source's seasonal VOM emissions. This condition is included in this permit as the VOM emissions from this source have historically exceeded 15 tons in an individual seasonal allotment period and the source is being permitted for additional VOM emissions with the new coating operations. Accordingly, the source became subject to and will continue to be subject to the applicable requirements of the ERMS for a participating source that may emit more than 15 tons of VOM per seasonal allotment period.

6. Operation of the Pilot Line with new coating operations is allowed pursuant to this construction permit until a new CAAPP Permit is issued for the source. Upon initial startup of a coating operation on the new Pilot Line, operation of the Punch Press Department #2, Cold Rolling Mill, and Printing Line (PRINT-1) are also allowed pursuant to this permit until a new CAAPP Permit is issued for the source.

If you have any questions on this permit, please contact Ricardo Ng at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

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cc: Region 1

**Attachment 1**

Nonattainment New Source Review Applicability

(Contemporaneous Five-year Period of 2001 through 2005)

Table I: Emissions Increase Associated with the Project

<u>Equipment</u>	<u>Date</u>	<u>Permit Number</u>	<u>VOM Increase (Tons/Yr)</u>
Pilot Line	2005	04100019	19.38
Cold Mill Increased Usage	2005	04100019	0.37

Table II: Source-Wide Creditable Contemporaneous Emission Increases

<u>Equipment</u>	<u>Date</u>	<u>Permit Number</u>	<u>VOM Increase (Tons/Yr)</u>
Printing Line (PRINT-1)	2001	(See Condition 5)	0.14
Punch Press Department #2	2001	01020025	1.14
Pilot line Cleaning tank	2001	01080036	0.69
Special Products Second Slitting Line	2003	03010025	0.14

Table III: Source-Wide Creditable Contemporaneous Emission Decreases

<u>Equipment</u>	<u>Date</u>	<u>Permitted Number</u>	<u>VOM Decrease (Tons/Yr)</u>
Annealing Ovens (2)	2002	---	0.06

Table IV: Net Emissions Change

	<u>VOM Emissions (Tons/Yr)</u>
Emissions Increases Associated with New Construction	19.75
Source-Wide Creditable Contemporaneous Emissions Increases	2.41
Source-Wide Creditable Contemporaneous Emission Decreases	<u>- 0.06</u>
Total:	22.10

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